found perfectly complete and successful; and he called the attention of the members to the fact, that they could be erected at a much less expense than that of the High School, which cost about $7000, while these had not cost more than £500 or $600 a piece. The wall was carried up until near the top (from 35 to 40 feet), and then curved inwards about 18 inches; and on it were then laid the timbers upon which the equatorial was supported. It was then carried up some 18 inches higher, and the observatory floor laid upon the same wall. The dome had been made to traverse with great facility by a very simple contrivance. Plates of boiler iron were made of a circular form, one of which was attached to the lower edge of the dome, the other laid down upon the floor. The dome traverses upon balls of iron, about seven inches in diameter.

The Committee appointed on the 5th January, 1844, to revise the By-laws and Regulations of the Society, reported a series of resolutions.

The list of Committees on business was called over.

Stated Meeting, November 21.

Present, twenty-five members.

Dr. Franklin Bache, Vice-President, in the Chair.

Letters were received and read:—

From the Royal Society of Sciences of Upsal, dated Upsal, 1st June, 1844, announcing the transmission of the 12th Vol. of their Transactions.

The following donations were announced:—

FOR THE LIBRARY.

Transactions of the Horticultural Society of London. Second Series. Vol. II. Part VI. with Title and Index to complete the Volume. Vol. III. Parts I. and II. 4to.—*From the Society.*

Proceedings of the Horticultural Society of London. Nos. IX. to XXI. inclusive. January 21, 1840, to December 5, 1843. 8vo. *From the same.*

Society for the Encouragement of Arts, Manufactures, and Commerce. Abstract of Proceedings and Transactions, during the Session 1844–1845; and Premiums for the Sessions 1845–1846, 1846–1847. London, 1845. 8vo.—*From the Society.*

Nova Acta Regiæ Societatis Scientiarum Upsaliensis. Vol. XII. Upsaliæ, 1844. 4to.—*From the Society.*

Summary of the Transactions of the College of Physicians of Philadelphia. From May to October, 1845, inclusive. 8vo.—*From the College.*

The Electrical Magazine. Conducted by Mr. Charles V. Walker. Vol. II. No. 10. October, 1845. 8vo.—*From the Editor.*

Dissection of a Spermaceti Whale, and three other Cetaceans. By J. B. S. Jackson, M.D. From the Boston Journal of Natural History, Vol. V. No. 2. October, 1845. 8vo.—*From the Author.*

The list of Committees on subjects of science was read.

The list of Committees on obituary notices was read.

On motion of Dr. Dunglison, Dr. Wood was appointed to prepare an obituary notice of Dr. Beasley.

Dr. Patterson exhibited to the Society a *diamond*, which he had this day received, enclosed in a letter from Mr. James F. Cooper, Superintendent of the Branch Mint at Dahlonega.

It was found in Hall County, in the northern part of Georgia, in conducting the process of washing for gold.

Its weight is 6.8 grains; its specific gravity 3.54. It is a perfect crystal, in the form of a rhomboidal dodecahedron, with the rounded faces characteristic of this gem.

Its general outline is oval, somewhat flattened, or having, in the language of the lapidary, a good spread.

It had been exhibited to Mr. Isaac Philips, of Philadelphia, a gentleman thoroughly acquainted with the qualities and varieties of diamonds, and he pronounced it to be very white, and of the first water. He said that it bore a strong resemblance to those obtained from Borneo.

Mr. Cooper states, in his letter to Dr. Patterson, that two similar specimens had been found in the same locality. A diamond had also been found in the gold region of North Carolina some years ago, and was in the possession of Mr. Clemson.

Mr. Lea described the crystalline forms of the diamond, and exhibited a specimen of murio-phosphate of lead crystallized, with curved edges.

Dr. G. Emerson made a communication upon the excessive mortality of male children, with the causes.

"Of all the children born, many more are males than females. In Philadelphia, the excess of males at birth is about 7½ per cent. Of the children that die, much the largest amount are also males; so that by the 10th year of age, the male numerical advantage at birth of 7½ per cent. is nearly lost. By the 15th year, the number of living females comes to exceed the males about as much as the males did the females at birth.

Up to the 15th year, there has consequently been a loss of nearly 15 per cent. more males than females. It has been customary to ascribe this loss to greater exposure to the weather and accidents on the part of males. But this does not account for it, since the largest proportion of the mortality occurs during the earlier stages of infancy, whilst the sexes are subjected to similar circumstances.

By examining into the particular causes which had proved fatal to many thousands of both sexes, I found that those diseases by which the males had been destroyed in the greatest numbers were—inflammation of the brain, and its consequences, convulsions and hydrocephalus; inflammations of the lungs, stomach, bowels, &c.; fevers of all kinds, except scarlet and some others of the eruptive class.

The diseases most destructive to male infants all belong to the *Sthenic* class, characterized by excessive inflammatory and febrile actions, such as attend upon constitutions in which the energies of life are highly exalted.

The list of diseases in which the deaths of females constitute the largest proportion, is small, the most prominent being hooping cough and scarlet fever. These, with all other diseases to which female infants are particularly liable to succumb, appertain to the *Asthenic* class, characterized by speedy exhaustion and prostration of the vital forces.

Upon comparing these results, obtained from data furnished by the Philadelphia bills of mortality, with others derived from calculations based upon the British bills, embracing an immense amount of deaths, I find my conclusions, relative to the controlling agencies exerted over infantile life by peculiar physiological conditions of the sexes, fully sustained. The practical bearing of these results of statistical

investigation, must be very obvious to physicians. The proneness of boys to fall victims to diseases of a highly inflammatory character, must surely call for the adoption of prompt and vigorous means of reducing the exalted actions of the system, which sustain local inflammations, and lead them to terminate in disorganization. In the treatment of girls, on the contrary, more than ordinary caution should be observed not to push antiphlogistic measures too far, to guard against the effects of enfeebling agencies, and provide timely support to the exhausted energies of the system.

Effects of Hot Weather upon Infantile Mortality.

In the Southern and Middle States of the Union, the direct and indirect agencies of high temperature swell the lists of infantile mortality often to a melancholy extent. In some tables published in the American Journal of the Medical Sciences (Nov. 1831), I showed the deaths in Philadelphia under the 20th year, at the different seasons, for a period of five years. Taking the months of June, July, and August, or three warmest months, the proportion of deaths occurring under the 2d year of childhood, was about four times greater than that which occurred during the same months for the whole 18 years of life succeeding. On the other hand, the sum of the mortality under the 2d year, for November, December, and January, little exceeded that of the same months for the succeeding 18 years. These estimates show, in a striking manner, the direful influences exerted by hot weather upon infantile life, and the comparatively small injury sustained from cold. Perhaps the most interesting fact developed by statistical researches upon this particular subject, is, that the deleterious operations of heat are almost entirely confined to the first months of life, as, after the first year, the influence of the seasons in increasing infantile mortality is scarcely perceptible.

These investigations were published by me in 1831, since which the results of other inquiries upon the effects of temperature on life, made in Europe, have come to hand. These, generally, show an increased infantile mortality during the *winter* months, but still they sustain the law—for such I think it may be considered—that the influence of atmospheric temperature upon the infant seems almost lost, after it has weathered the first months of existence. Among others who have devoted attention to this topic with confirmatory results, I may refer to M. Quetelet, in his account of the influence of the seasons upon mortality at different ages, published in Brussels in 1838."

The resolutions reported at the last meeting, from the Committee on the By-laws, were taken up for consideration, and having been amended, the Chair decided that they must lie over until the next meeting.

On motion of Mr. Ord, the Committee appointed to report on the condition of the manuscripts of the Society was discharged.

On motion of Mr. Ord, the Librarian was directed to send a set of the new series of the Transactions of the Society to the Magnetic and Meteorological Observatory of the Institute of Mines of St. Petersburg, and to transmit them hereafter as they appear.

On motion of Dr. Dunglison, the Librarian was instructed to carry into effect henceforth, Chap. VIII. Sect. 3d, of the By-laws of the Society.

Stated Meeting, December 5.

Present, twenty-three members.

Dr. Franklin Bache, Vice-President, in the Chair.

Letters were received and read:—

From the Royal Prussian Academy of Sciences, dated 1st August, 1845, on transmitting the Transactions and Monthly Proceedings of the Academy:—

From Col. Abert, dated Washington, 3d December, 1845, acknowledging the receipt of notice of his appointment to prepare an obituary notice of the late Mr. Nicollet: and,—

From Dr. Wood, dated Philadelphia, 27th November, 1845, accepting the appointment to prepare an obituary notice of the late Dr. Beasley.

The following donations were announced:—

FOR THE LIBRARY.

Abhandlungen der Königlichen Akademie der Wissenschaften zu Berlin. Aus dem Jahre, 1843. Berlin, 1845. 4to.—*From the Royal Academy of Sciences of Berlin.*